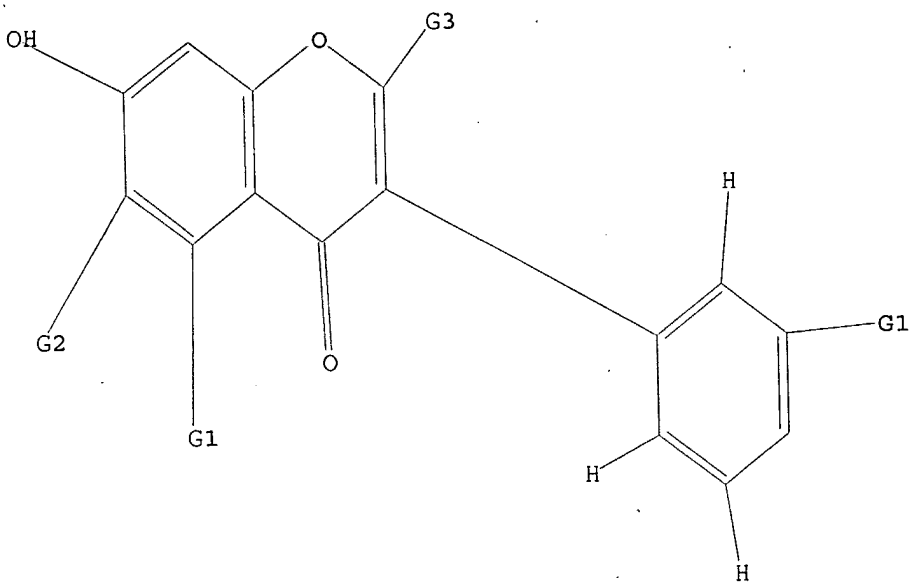
CAS online 10/609,120



G1 H,OH

G2 H,OH,MeO,EtO,n-PrO,n-BuO

G3 H,COOH,C(O)CH3

Structure attributes must be viewed using STN Express query preparation.

=> s l1 ful
FULL SEARCH INITIATED 10:12:18 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 16628 TO ITERATE

100.0% PROCESSED 16628 ITERATIONS 699 ANSWERS
SEARCH TIME: 00.00.01

L2 699 SEA SSS FUL L1

=> fil caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	172.31

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=> s l2
L3 9513 L2

=> s l3 and alcohol
280095 ALCOHOL
L4 163 L3 AND ALCOHOL

=> d 1-20 bib abs hitstr

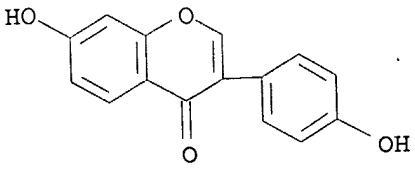
L4 ANSWER 1 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:1127086 CAPLUS
DN 147:455421
TI Daidzein medical composition and its preparation
IN Li, Yaping; Chen, Lingli; Gu, Wangwen
PA Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 12pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 101045045	A	20071003	CN 2006-10025302	20060330
PRAI	CN 2006-10025302		20060330		

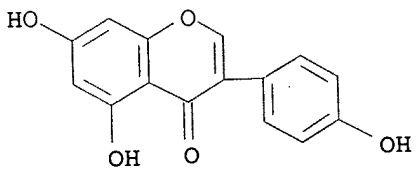
AB The medical composition consists of daidzein 1, cyclodextrin(α-cyclodextrin, β-cyclodextrin, γ-cyclodextrin, hydroxypropyl-β-cyclodextrin or acetyl-β-cyclodextrin) 25-500, and water-soluble adjuvant(ethanol, propanediol, glycerol, etc.) 50-1000 weight part. The medical composition is prepared by weighing various constituents according to the formulation, dissolving cyclodextrin in water-soluble adjuvant or water, adding daidzein to water-soluble adjuvant solution or dissolving daidzein in water-soluble adjuvant then adding to cyclodextrin water solution, treating with ultrasonic wave or stirring, or spray drying or freeze drying. The medical composition may be prepared into injection with merits such good water solubility, low toxic side effects, etc.

IT 486-66-8, Daidzein
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(daidzein medical composition and its preparation)

RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



L4 ANSWER 2 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:1054616 CAPLUS
TI Studies on liposoluble constituents from fruit of sophora japonica L.
AU Zhou, Jine; Chen, Congying; Xie, Yifan; Liu, Huizhong; Chen, Zenai; Lu, Yang
CS Department of Pharmacy, School of Medicine, Shanghai Jiaotong University, Shanghai, 200025, Peop. Rep. China
SO Shanghai Jiaotong Daxue Xuebao, Yixueban (2006), 26(11), 1245-1248
CODEN: SJDXB8
PB Shanghai Jiaotong Daxue Xuebao Yixueban Bianjibu
DT Journal
LA Chinese
AB The aim of this paper is to investigate the chemical constituents from the liposol. fraction of the fruit of Sophora japonica L. Constituents were isolated by means of extraction with different solvents and column chromatog., and identified by spectral anal. From the acetone soluble fraction, 10 compds. were isolated and identified as sophoradiol(I), maltol(II), α-acetylpyrrole(III), Hexacosanoic acid(IV), ceryl alc.(V), β-sitosterol(VI), glycerol-α- monohexadecanoate(VII), octacosanol(VIII), genistein(IX) and kaempferol (X). Compound II, III, IV, V , VII, VIII and compound I were isolated from the plant and its fruit resp. for the first time.
IT 446-72-0, Genistein
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(liposol. constituents in fruit of sophora japonica L.)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



L4 ANSWER 3 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:1022247 CAPLUS
DN 147:350655
TI Transdermal drug delivery and topical compositions comprising at least two permeation enhancers, such as benzyl alcohol and lecithin for application on the skin
IN Sand, Bruce J.; Babich, Michael; Haghighi, Ali Zendedel
PA Nuviance, Inc., USA
SO PCT Int. Appl., 94pp.
CODEN: PIXXD2
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007103555	A2	20070913	WO 2007-US6037	20070308

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

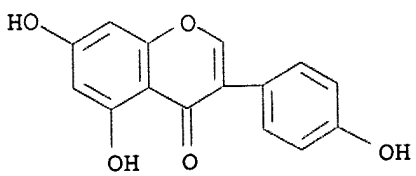
PRAI	US 2006-781925P	P	20060308
	US 2006-781950P	P	20060308
	US 2006-781951P	P	20060308
	US 2006-781952P	P	20060308
	US 2006-796007P	P	20060428
	US 2006-801349P	P	20060518
	US 2007-878886P	P	20070103

AB Transdermal delivery compns. and topical compns. for application to the skin are provided. The transdermal delivery composition includes at least two penetrants working synergistically but by disparate biochem. pathways. In one embodiment, the transdermal delivery system includes benzyl alc. and lecithin organogel. The transdermal delivery compns. are used in a variety of topical compns. as a means of transdermally delivering and topically administering different drugs and agents, including compns. promoting collagen biosynthesis, retinoids and skin lighteners, chemical denervation agents such as Botox, anti-fungal agents, anesthetics and non-steroidal anti-inflammatory drugs (NSAIDs). In addition, these topical compns. may be used in combination with non-ablative treatment modalities, such as microdermabrasion, laser-based skin remodeling and radio-frequency-based skin remodeling. Thus, to a mixture of 6.0 g benzocaine, 1.8 g lidocaine and 1.2 g tetracaine were added 2 mL DMSO, 3 mL benzyl alc., 7 mL of lecithin-iso-Pr palmitate and 6 mL of 69% ethanol, followed by 18 mL of Pluronic F127 30% gel to obtain a local anesthetic topical gel.

IT 446-72-0, Genistein 486-66-8, Daidzein
40957-83-3, Glycitein
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transdermal and topical compns. comprising at least two permeation enhancers for treatment of skin disorders)

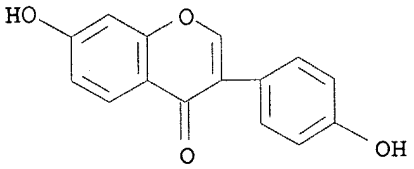
RN 446-72-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

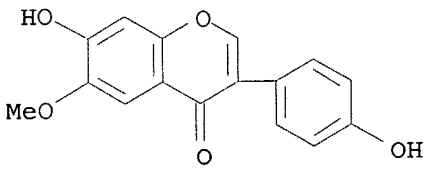


RN 486-66-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



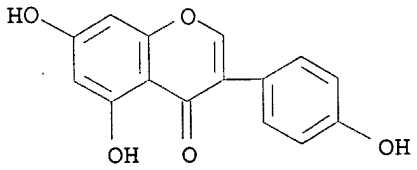
RN 40957-83-3 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)-6-methoxy- (CA INDEX NAME)



L4 ANSWER 4 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:1000340 CAPLUS
DN 147:299585
TI Food Analysis on Microfluidic Devices Using Ultrasensitive Carbon Nanotubes Detectors
AU Crevillen, A. Gonzalez; Avila, Monica; Pumera, Martin; Gonzalez, Maria Cristina; Escarpa, Alberto
CS Department of Analytical Chemistry and Chemical Engineering, University of Alcala, Alcala de Henares, Madrid, E-28871, Spain
SO Analytical Chemistry (Washington, DC, United States) (2007), 79(19), 7408-7415
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB Microfluidic devices using carbon nanotube (CNT) materials (single-walled and two multiwalled (MWCNT)) for the anal. of selected analyte groups of significance in foods such as dietary antioxidants, water-soluble vitamins, vanilla flavors, and isoflavones involved in representative food samples have been explored for the first time. Ultrafast sepns. resulted in well-defined and resolved peaks with enhanced voltammetric current in comparison with those obtained from unmodified screen-printed electrodes, turning MWCNT into an ideal material for electrochem. sensing in food anal. Resolution was improved by a factor of 2, and sensitivity was dramatically enhanced with amplification factors toward calibration slopes from 4- to 16-fold. In both qual. and quant. domains, this impressive performance of CNTs integrated on microfluidics allowed solving specific challenges in food environments such as the direct detection of analytes in complex natural samples and unambiguous analytes in the control of fraud, which was not possible on nonmodified surfaces, avoiding the integration of complex preconcn. steps on these microdevices. The use of these unique materials in microfluidics for food anal. has opened new expectations in "lab-on-a-chip" domains.
IT 446-72-0, Genistein

RL: ANT (Analyte); ANST (Analytical study)
(food anal. by ultrasensitive carbon nanotubes on microfluidic devices for dietary antioxidants, water-soluble vitamins, vanilla flavors, and isoflavones)

RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:998619 CAPLUS
DN 147:330442
TI Composition comprising extract of Butea species for the prevention/treatment of bone disorders and a process for the preparation thereof
IN Maurya, Rakesh; Singh, Geetu; Murthy, Pandruvada Subramanyam Narayan; Mehrotra, Sandhya; Singh, Divya; Bhargava, Biju; Singh, Man Mohan
PA Council of Scientific and Industrial Research, India
SO PCT Int. Appl., 73pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

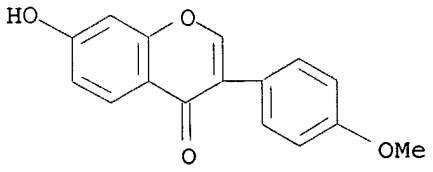
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007099432	A2	20070907	WO 2007-IB468	20070227
	WO 2007099432	A3	20071122		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

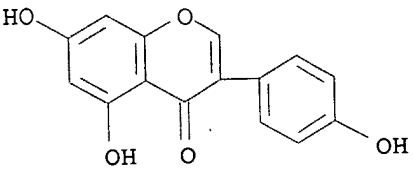
PRAI IN 2006-DE522 A 20060228
OS MARPAT 147:330442
AB The present invention provides a pharmaceutical composition from the exts. of Butea species for prevention or treatment of bone disorders, process of preparation and use thereof. The present invention further relates to the processes for the preparation of pharmaceutically active exts., fractions, subfractions, isolation of pure compds., their pharmaceutically acceptable salts.
IT 485-72-3
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(composition comprising extract of Butea species for prevention/treatment of bone disorders and a process for preparation thereof)

RN 485-72-3 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)

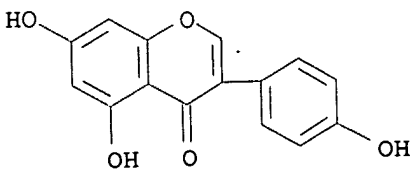


L4 ANSWER 6 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:955282 CAPLUS
DN 147:445029
TI Perillyl alcohol and genistein differentially regulate PKB/Akt and 4E-BP1 phosphorylation as well as eIF4E/eIF4G interactions in human tumor cells
AU Peffley, Dennis M.; Sharma, Catherine; Hentosh, Patricia; Buechler, Robbie D.
CS Department of Biochemistry, Kansas City University of Medicine and Biosciences, Kansas City, MO, 64106-1453, USA
SO Archives of Biochemistry and Biophysics (2007), 465(1), 266-273
CODEN: ABBIA4; ISSN: 0003-9861
PB Elsevier
DT Journal
LA English
AB Previously we demonstrated that secondary products of plant mevalonate metabolism called isoprenoids attenuate 3-hydroxy-3-methylglutaryl CoA reductase mRNA translational efficiency and cause tumor cell death. Here we compared effects of "pure" isoprenoids (perillyl alc. and γ-tocotrienol) and a "mixed" isoprenoid-genistein-on the PKB/Akt/mTOR pathway that controls mRNA translation and m7GpppX eIF4F cap binding complex formation. Effects were cell- and isoprenoid-specific. Perillyl alc. and genistein suppressed 4E-BP1(Ser65) phosphorylation in prostate tumor cell lines, DU145 and PC-3, and in Caco2 adenocarcinoma cells. Suppressive effects were similar to or greater than that observed with a PI3 kinase inhibitor or rapamycin, an mTOR inhibitor. 4E-BP1(Thr37) phosphorylation was reduced by perillyl alc. and genistein in DU145, but not in PC-3. Conversely, perillyl alc. but not genistein decreased 4E-BP1(Thr37) phosphorylation in Caco2. PKB/Akt activation via Ser473 phosphorylation was enhanced in DU145 by perillyl alc. and in PC-3 by γ-tocotrienol, but was suppressed by genistein. Importantly, perillyl alc. disrupted interactions between eIF4E and eIF4G, key components of eIF4F (m7GpppX) cap binding complex. These results demonstrate that "pure" isoprenoids and genistein differentially impact cap-dependent translation in tumor cell lines.
IT 446-72-0, Genistein
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(perillyl alc. and genistein differentially regulate PKB/Akt and 4E-BP1 phosphorylation as well as eIF4E/eIF4G interactions in human tumor cells)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:955266 CAPLUS
DN 147:463894
TI Enzymatic characteristics of an aldo-keto reductase family protein (AKR1C15) and its localization in rat tissues
AU Endo, Satoshi; Matsunaga, Toshiyuki; Horie, Kenji; Tajima, Kazuo; Bunai, Yasuo; Carbone, Vincenzo; El-Kabbani, Ossama; Hara, Akira
CS Laboratory of Biochemistry, Gifu Pharmaceutical University, Mitahora-higashi, Gifu, 502-8585, Japan
SO Archives of Biochemistry and Biophysics (2007), 465(1), 136-147
CODEN: ABBIA4; ISSN: 0003-9861
PB Elsevier
DT Journal
LA English
AB A member of the aldo-keto reductase superfamily, AKR1C15, was isolated via cDNA cloning, but its physiol. function remains unknown. Here, we show that recombinant AKR1C15 is an NADPH-dependent reductase with broad substrate specificity for aromatic, alicyclic and aliphatic carbonyl compds., including acetoin, 2,5-hexanedione, methylglyoxal, farnesal, retinals, 17-ketosteroids and monosaccharides. Especially, all-trans-retinal, α-diketones and lipid-derived aldehydes including 4-hydroxynonenal were excellent substrates showing low Km values (0.3-5.5 μM). Immunohistochem. and reverse transcription-PCR analyses revealed that AKR1C15 is highly expressed in rat bronchiolar Clara cells, type II alveolar cells, gastric parietal cells, the epithelial cells of the stomach and colon, and the brown adipocytes. The enzyme was not detected in cells of other rat tissues, but is consistently expressed in the vascular endothelial cells. These results suggest that AKR1C15 plays a role in retinoid, steroid, isoprenoid and carbohydrate metabolism, as well as a defense system, protecting against reactive carbonyl compds.
IT 446-72-0, Genistein
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitor; enzymic characteristics of aldo-keto reductase AKR1C15 and its localization in rat tissues)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RE.CNT 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:873166 CAPLUS
DN 147:235322
TI Synthesis of carotenoid analogs or derivatives with improved antioxidant characteristics
IN Lockwood, Samuel F.; Nadolski, Geoff; Foss, Bente J.
PA Cardax Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 39pp., which
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007090095	A2	20070809	WO 2007-US61241	20070129
	WO 2007090095	A3	20071025		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRAI	US 2006-762753P	P	20060127
	US 2006-774726P	P	20060217

OS MARPAT 147:235322
GI

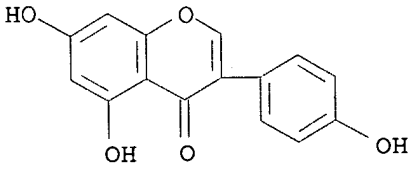
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A method is described for synthesizing and administering carotenoid compds. I [R1, R2 = R11 - R18; R3 = H, Me; R4 = H, Me, OH, OR5 (with proviso that at least one R4 = OR5); R5 = H, alkyl, aryl, alkyl-N(R6)2, aryl-N(R6)2, alkyl-CO2H, aryl-CO2H, O-C(:O)R7, P(:O)(OR7)2 S(:O)(OR7)2, Si(R6)3, amino acid, peptide, carbohydrate, C(:O)(CH2)nCO2R8, nucleoside, co-antioxidant; R6 = H, alkyl, aryl; R7 = H, alkyl, aryl, CH2Ph, group IA metal, co-antioxidant; R8 = H, alkyl, aryl, P(:O)(OR7)2, S(:O)(OR7)2, amino acid, peptide, carbohydrate, nucleoside, co-antioxidant; n = 1 - 9] with improved antioxidant characteristics. In some embodiments, extension or improvement of conjugation may be employed in structural modification of carotenoids. In other embodiments, reduction of ring/chain steric hindrance may improve the lambda max, and hence, the overall antioxidant capability, of particular compds. In other embodiments, introduction and/or increase in synthetic handles for conjugation may improve the stoichiometric ratios of conjugating moieties to the polyene backbone. Thus, carotenoid analog II was prepared from 2,3,4-trihydroxybenzaldehyde via silylation with Et3SiCl in DMF containing imidazole, reduction with Dibal-H in CH2Cl2, chlorination with PPh3/CCl4, phosphinylation with PPh3 in C6H6, and Wittig reaction with crocetin dialdehyde. The methods may be used to

improve natural and/or synthetic compds. for medicinal application in the treatment of disease.

IT 446-72-0, Genistein
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(co-antioxidant; synthesis of carotenoid analogs or derivs. with improved antioxidant characteristics)

RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



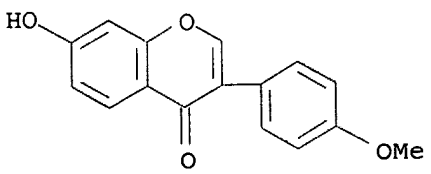
L4 ANSWER 9 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:797767 CAPLUS
DN 147:197342
TI Activity inhibitor of cytochrome p450 3a
IN Hu, You-Pu; Hsiong, Cheng-Huei; Kuo, Pei-Chung
PA Taiwan
SO Taiwan., 4pp.
CODEN: TWXXA5
DT Patent
LA Chinese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI TW 266636	B	20061121	TW 2000-89117134	20000824
PRAI TW 2000-89117134		20000824		

AB The present invention relates to a cytochrome P 450 3A activity inhibitor which is a composition containing at least one compound selected from the group consisting luteolin-7-glycoside, glycyrrhizin, (+)-epicatechin, kaempferol, terpineol, hesperetin, trans-cinnamaldehyde, alfa-naphthoflavone, luteolin, oleanolic acid, nordihydroguaiaretic acid, (+)-catechin, lauryl alc., gallic acid, apigenin, beta-myrcene, formononetin, isoquercitrin, ergosterol, 3-phenylpropyl acetate, umbelliferone, hesperidin, baicalein, quercetin or swertiamarin, or pharmaceutically acceptable salt thereof.

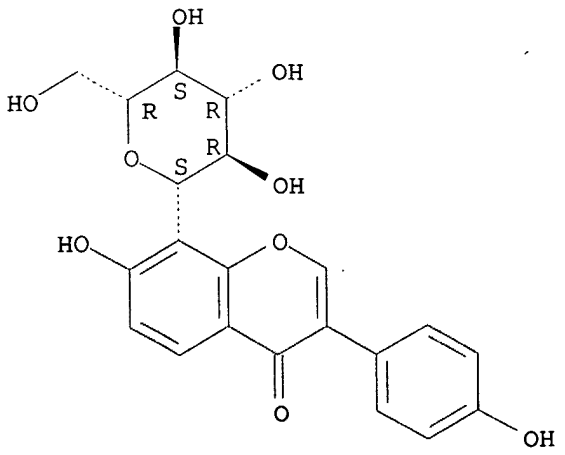
IT 485-72-3, Formononetin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of inhibitor of cytochrome P 450 3a)

RN 485-72-3 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)



L4 ANSWER 10 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:756057 CAPLUS
DN 147:203785
TI Effect of puerarin on β-endorphin, malonyl dialdehyde, and P-selectin in rats with acute alcohol poisoning
AU Du, Yanqiu; Zhao, Min; Li, Changyu
CS Emergency Department, Second Affiliated Hospital, China Medical University, Shenyang, 110004, Peop. Rep. China
SO Zhongguo Yike Daxue Xuebao (2006), 35(3), 269-270
CODEN: ZYDXEN; ISSN: 0258-4646
PB Zhongguo Yike Daxue
DT Journal
LA Chinese
AB The objective was to investigate the changes of β-endorphin (β-EP), malonyl dialdehyde (MDA), and P-selectin and the protective effect of puerarin in rats with acute alc. poisoning. Forty Wistar rats were divided into 5 groups: control group, alc. poisoning group, puerarin group, naloxone group, and puerarin plus naloxone group. The latent period of sleep was measured, and the levels of β-EP, MDA, and P-selectin were detected. The levels of β-EP, MDA, and P-selectin in alc. poisoning group were significantly higher than those in control group ($P<0.01$). The latent period of sleep in puerarin group was significantly longer than that in alc. poisoning group ($P<0.05$). There was no significant difference in the levels ofβ-EP and MDA between puerarin group and naloxone group. Naloxone had no effect on the level of P-selectin. The levels ofβ-EP, MDA, and P-selectin increases in rats with acute alc. poisoning. Puerarin may have a protective effect on acute alc. poisoning by inhibiting the production of β-endorphin, the release of free radicals, and platelet aggregation.
IT 3681-99-0, Puerarin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effect of puerarin on β-endorphin, malonyl dialdehyde, and P-selectin in rats with acute alc. poisoning)
RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

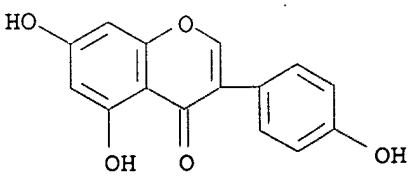
Absolute stereochemistry.



L4 ANSWER 11 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:643414 CAPLUS
DN 147:64527
TI Structural carotenoid analogs or derivatives for the modulation of systemic and/or target organ redox status
IN Lockwood, Samuel F.
PA Cardax Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 71pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007067957	A1	20070614	WO 2006-US61751	20061207
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	US 2007238793	A1	20071011	US 2006-636401	20061207
PRAI	US 2005-748385P	P	20051207		

OS MARPAT 147:64527
AB Methods for the reduction or prevention of oxidative stress in a human subject comprising administering to the human subject an effective amount of a composition comprising xanthophyll carotenoids, or analogs or derivs. of astaxanthin, lutein, zeaxanthin, lycoxanthin, lycophyll, or lycopene are described. Also described are compns. comprising xanthophyll carotenoids, or analogs or derivs. of astaxanthin, lutein, zeaxanthin, lycoxanthin, lycophyll, or lycopene, the compns. being effective for the reduction or prevention of oxidative stress in a human subject, especially cardiac oxidative stress.
IT 446-72-0, Genistein
RL: PAC (Pharmacological activity); BIOL (Biological study)
(structural carotenoid analogs or derivs. for modulation of systemic and/or target organ redox status)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:619890 CAPLUS
DN 147:39258
TI Methods and compositions to improve activity and reduce toxicity of stents
IN Au, Jessie L. S.; Wientjes, Guillaume M.
PA USA
SO PCT Int. Appl., 43pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007065016	A2	20070607	WO 2006-US46296	20061204

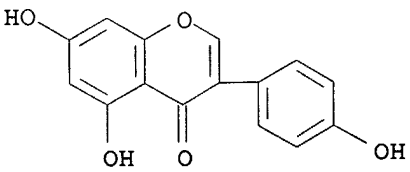
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI US 2005-741855P P 20051202

AB This invention relates to method of improving the efficacy of endovascular drug-releasing stents implanted in a subject, wherein one or more modulators of drug transport are administered at such a time as is beneficial to maintain nearby tissue concns. of the drug released by the stent within their therapeutically effective range, wherein one or more modulators of drug activity are administered at such a time as is beneficial to prevent restenosis, and wherein one or more modulators of drug activity are administered at such a time as is beneficial to promote the early healing or reendothelialization process.

IT 446-72-0, Genistein
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and compns. to improve activity and reduce toxicity of stents)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



L4 ANSWER 13 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:619578 CAPLUS
DN 147:46112
TI Treatment of cancer and other diseases
IN Habib, Nabil
PA Nabil Habib Lab, Lebanon; Vianova Labs, Inc.
SO PCT Int. Appl., 86pp.
CODEN: PIXXD2

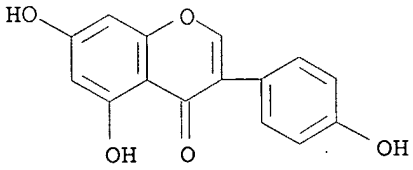
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007064691	A1	20070607	WO 2006-US45665	20061130

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI US 2005-741725P P 20051202
OS MARPAT 147:46112
AB The present invention relates to a novel compound (e.g., 24-ethyl-cholestane-3β,5α,6α-triol), its production, its use, and to methods of treating neoplasms and other tumors as well as other diseases including hypercholesterolemia, autoimmune diseases, viral diseases (e.g., hepatitis B, hepatitis C, or HIV), and diabetes.
IT 446-72-0, Genistein
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of cancer and other diseases using ethylcholestane triol and combination with other agents)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

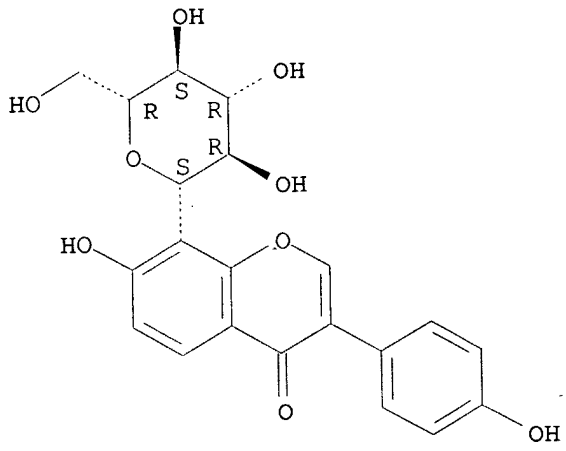
L4 ANSWER 14 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:411450 CAPLUS
DN 147:86180
TI Pharmacokinetics of ginsenoside re in rat
AU Peng, Ying; Wang, Shujun; Pan, Weisan; Xu, Suixu
CS School of Pharmacy, Shenyang Pharmaceutical University, Shenyang, 110016, Peop. Rep. China
SO Shenyang Yaoke Daxue Xuebao (2006), 23(4), 197-200
CODEN: SYDXFF; ISSN: 1006-2858
PB Shenyang Yaoke Daxue Xuebao Bianjibu
DT Journal
LA Chinese
AB Objective To develop a HPLC method for the determination of ginsenoside Re concns.

in rat plasma samples and to research pharmacokinetics of the concentration-time
parameter of ginsenoside Re in rats after iv. Methods The pharmacokinetic characteristics were calculated after iv of 20, 30 and 40 mg.kg-1 ginsenoside Re in rats. Results The main parameters t1/2(α) were 6.505, 6.817 and 4.499 min resp., t1/2(β) were 28.96, 30.49 and 27.57 min resp., The AUC were 599.31, 1025.65, 1415.7 mg.L-1.min resp., the main parameters are similar. Conclusions The result that the AUC values are directly relative to the doses indicates that the elimination of ginsenoside Re is linear pharmacokinetics.

IT 3681-99-0, Puerarin
RL: PKT (Pharmacokinetics); BIOL (Biological study)
(Pharmacokinetics of ginsenoside re in rat)

RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 15 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:337485 CAPLUS
DN 146:387044
TI Medical composition containing Rhodiola sacra and puerarin for treating cardiovascular and cerebrovascular disease
IN Cai, Jun
PA Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 20pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1931214	A	20070321	CN 2005-10044593	20050914
PRAI	CN 2005-10044593		20050914		

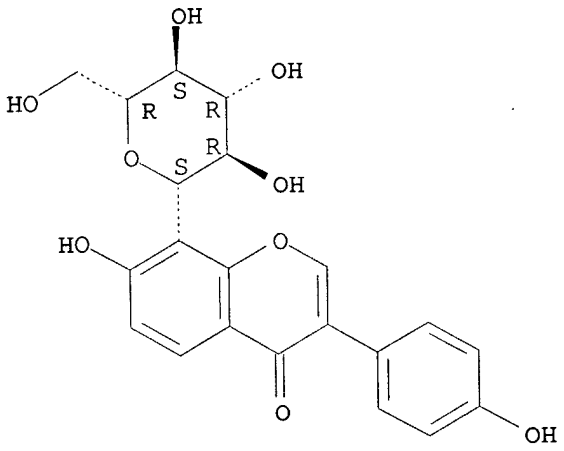
AB Title medical composition comprises Rhodiola sacra 300-1800 weight parts or its extract, puerarin 30-500 weight parts. Title medical composition is manufactured by (a)
pulverizing Rhodiola sacra, ethanol extracting, filtering, combining filtrate, recovery of ethanol for concentrated liquid; (b) saturated Bu alc. extracting, vacuum

concentrating for paste, spray drying for Rhodiola sacra extract of Salidroside,
dissolving Rhodiola sacra extract in water, purifying through macroporous resin column, water and ethanol gradient eluting, vacuum recovery of ethanol, spray drying;(c) mixing Rhodiola sacra extract and puerarin, and medical acceptable carrier for formulation. The formulation of title medical composition is injection.

IT 3681-99-0P, Puerarin
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(medical composition containing Rhodiola sacra and puerarin for treating cardiovascular and cerebrovascular disease)

RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 16 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:150813 CAPLUS
DN 146:205237
TI Preservative systems for foods comprising cationic surfactants.
IN Miret Carceller, Jordi; Figueras Roca, Sergi; Segret Pons, Roger
PA Laboratorios Miret, S.A., Spain
SO PCT Int. Appl., 75pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007014580	A1	20070208	WO 2005-EP53735	20050801

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI WO 2005-EP53735 20050801

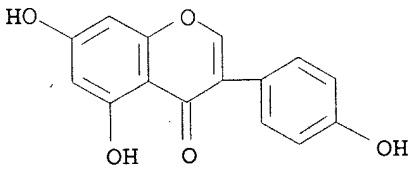
OS MARPAT 146:205237

AB Preservative systems on the basis of cationic surfactants are known in the art; a typical example of such cationic surfactants is the Et ester of the lauramide of arginine monohydrochloride (LAE). Besides the chloride form, the corresponding bromide and sulfate salts are known. It was found that other salts of the cationic surfactants display excellent properties, such as the salts of lactic acid, glutamic acid and acetic acid. It was further found that the combination of the cationic surfactants with at least one salt of an organic or inorg. acid displayed an excellent preservative action. A further preservative system with favorable properties was the combination of the cationic surfactants with at least one ester compound, amide or enzyme inhibitor. Also the combination of the cationic surfactant with a further cationic mol. such as Et arginate, glucosamine or chitosan led to an effective preservative system. A further effective preservative system turned out to be the cationic surfactant in encapsulated form.

IT 446-72-0, Genistein
RL: COS (Cosmetic use); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(preservative systems for foods comprising cationic surfactants)

RN 446-72-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:101027 CAPLUS

DN 147:133949

TI Effect of pueraria crude extract and puerarin on ethanol-induced expression of heat shock protein 70 in embryonic mouse hippocampal cultures

AU Han, Ping; Wu, Desheng; Li, Wenjie; Yu, Zengli; Wang, Qi

CS West China School of Public Health, Sichuan University, Chengdu, 610041, Peop. Rep. China

SO Zhonghua Yixue Zazhi (Beijing, China) (2005), 85(41), 2930-2933
CODEN: CHHTAT; ISSN: 0376-2491

PB Zhonghua Yixuehui Zazhishe

DT Journal

LA Chinese

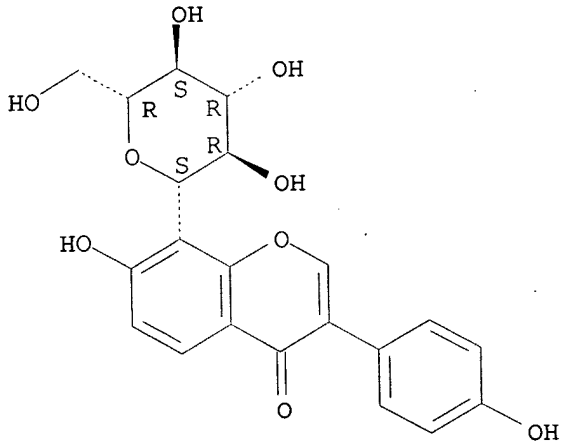
AB Whether the pueraria crude extract (CP) and standard preparation of pure puerarin (SP)
possessed the same neuroprotective effects on the expression of heat shock protein (HSP) 70 in the hippocampal cells of embryonic mouse was studied.

The hippocampus of 18-days-old mouse embryo was taken out and suspension of single cells was cultured. The effect of different concns. CP and SP on expression changes of HSP70 mRNA and protein in the hippocampal cells of embryonic mouse induced by ethanol was observed by RT-PCR and western blotting. 15 Mg/L CP and 10 mg/L SP could inhibit the expressions of HSP70 mRNA and protein induced by different concentration ethanol (50-350mmol/L).
Both SP and CP could inhibit the increase of expression of HSP70 mRNA and protein with identical effect of anti-oxidative stress.

IT 3681-99-0P, Puerarin
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(effect of pueraria crude extract and puerarin on ethanol-induced expression of heat shock protein 70 in embryonic mouse hippocampal cultures)

RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 18 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1351420 CAPLUS
DN 146:87370
TI Method for extraction of the effective constituent from plant by inter evaporation percolation
IN Wei, Tengyou; Wang, Fei; Liu, Xiaohui; Lin, Cuiwu; Wei, Wanxing
PA Guangxi University, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1879662	A	20061220	CN 2006-10035486	20060512
PRAI	CN 2006-10035486		20060512		

AB The method comprises (1) pulverizing dried plant or semi dry plant into 10-100 mesh; (2) adding 60-150% strippant to wetting of pulverized plant;

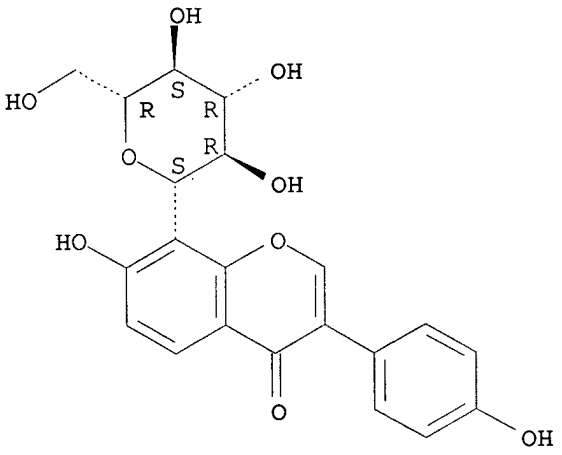
(3) paving wet pulverized plant on screen or filtration fabric with thick of 5-50 cm; (4) regulating pressure, extracting wet pulverized plant at the temperature 2-20 higher than strippant b.p. at the same pressure in 2-15 min, in which the extraction solvent is 5-20 times of wet pulverized plant.

IT 3681-99-0P, Puerarin
RL: PUR (Purification or recovery); PREP (Preparation)
(method for extraction of effective constituent from plant)

RN 3681-99-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 19 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1256395 CAPLUS

DN 146:807

TI Carotenoids, carotenoid analogs, or carotenoid derivatives for the treatment of visual disabilities

IN Lockwood, Samuel F.; Nadolski, Geoff

PA USA

SO U.S. Pat. Appl. Publ., 65pp.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2006270589	A1	20061130	US 2006-359984	20060222
PRAI US 2005-655133P	P	20050222		

OS MARPAT 146:807

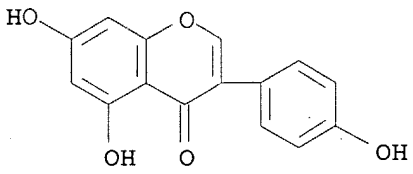
AB The invention discloses a method and system for treating visual disabilities using carotenoids, carotenoid analogs, and/or carotenoid derivs. The analog, derivative, or intermediate may be administered such that a subject's risk of experiencing diseases associated with visual disabilities may be thereby reduced. Analogs or derivs. of carotenoids may include substituents including for example co-antioxidants (e.g., Vitamin C and Vitamin C analogs). The carotenoid analog or derivative may be synthetic. The carotenoid analog may include a conjugated polyene with between 7 to 14 double bonds. The conjugated polyene may include an acyclic alkene

including at least one substituent and/or a cyclic ring including at least one substituent. In some embodiments, a carotenoid analog or derivative may include at least one substituent. The substituent may enhance the solubility of the carotenoid analog or derivative such that the carotenoid analog or derivative at least partially dissolves in water. Compound preparation is included.

IT 446-72-0, Genistein
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carotenoids, carotenoid analogs, or carotenoid derivs. for treatment of visual disabilities)

RN 446-72-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



L4 ANSWER 20 OF 163 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:1202223 CAPLUS

DN 145:511649

TI Method for preparation of gypenoside composite dosage forms and application for curing cardiovascular disease, cerebrovascular disease, senile dementia

IN Jiang, Shuqin

PA Cui, Bin, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 16pp.
CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

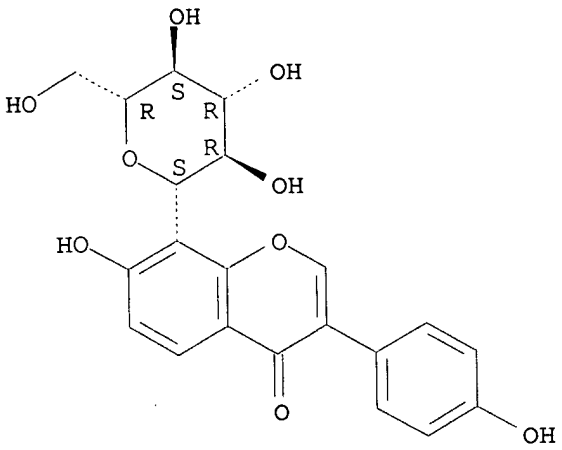
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1857473	A	20061108	CN 2006-10046085	20060317
PRAI	CN 2006-10046085		20060317		

AB The composite comprises gypenoside 1%-99%, Ligustrazine (containing hydrochloride, phosphate etc. inorg. and organic salt) 99%-1%, or Erigeron Breviscapus total flavone 99%-1%, total phenolic acids from stems and leaves of Hawthorn 99%-1%, or total flavone from gingko biloba leaf 99%-1%, or Ixeris sonchifolia total flavone and saponin 99%-1%, or safflower total flavone 99%-1%, or total flavone of puerarin 99%-1%, or Astragalus membranaceus total flavone and total glucoside 99%-1%, or salvianolic acids (salvianolic acid B or) 99%-1%, or total paeony glucosides 99%-1%, or hippophae rhamnoides total flavone 99%-1%. The composite is prepared into dosage form of injection, oral administration, skin administration, mucosal administration. The composite is used to cure cardiovascular disease, cerebrovascular disease, senile dementia, cerebral infarction, dysfunction caused by cerebral ischemia.

IT 3681-99-0, Puerarin
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of gypenoside composite dosage forms and application for curing cardiovascular disease, cerebrovascular disease, senile dementia)

RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



=> s l2 and ALDH
9513 L2
1299 ALDH
L5 9 L2 AND ALDH

=> d 1-9 bib abs hitstr

L5 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:20483 CAPLUS
DN 140:71053
TI Compounds useful for the inhibition of mitochondrial aldehyde dehydrogenase (ALDH-2) and modulating alcohol consumption, dependence and abuse
IN Keung, Wing Ming; Vallee, Bert L.; Gao, Guangyao
PA The Endowment for Research in Human Biology, Inc., USA
SO PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004002470	A1	20040108	WO 2003-US20584	20030627
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2491089	A1	20040108	CA 2003-2491089	20030627

	AU 2003247844	A1	20040119	AU 2003-247844	20030627
	US 2004068003	A1	20040408	US 2003-609120	20030627
	EP 1542675	A1	20050622	EP 2003-762244	20030627
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1671373	A	20050921	CN 2003-817905	20030627
	JP 2006501180	T	20060112	JP 2004-518118	20030627
	MX 2005PA00122	A	20051214	MX 2005-PA122	20050103
PRAI	US 2002-391907P	P	20020627		
	WO 2003-US20584	W	20030627		

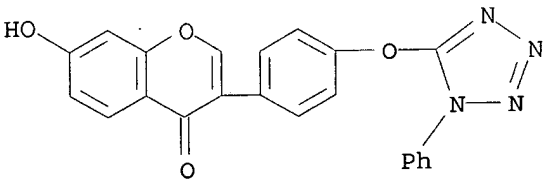
OS MARPAT 140:71053

AB The present invention provides novel antidipsotropic compds. The invention further provides methods of inhibiting ALDH-2 using the compds. described herein. Methods for modulating alc. consumption, alc. dependence and/or alc. abuse by administering the compds. of the invention to an individual are also provided. The present invention further provides a rationale for designing addnl. novel antidipsotropic compds. Hexzein, given orally, reduced ethanol intake in hamsters.

IT 640275-94-1P
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (ALDH-2) and modulating alc. consumption, dependence and abuse)

RN 640275-94-1 CAPLUS

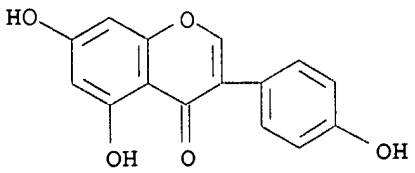
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-[4-[(1-phenyl-1H-tetrazol-5-yl)oxy]phenyl]- (CA INDEX NAME)



IT 446-72-0 485-72-3 486-66-8, Daidzein
491-80-5
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (ALDH-2) and modulating alc. consumption, dependence and abuse)

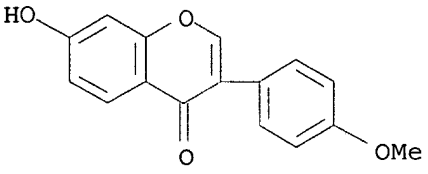
RN 446-72-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

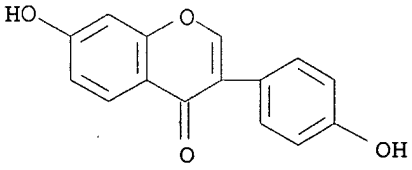


RN 485-72-3 CAPLUS

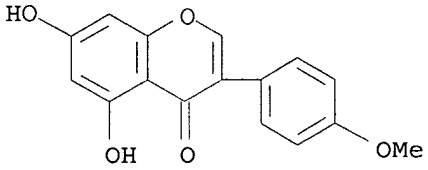
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)



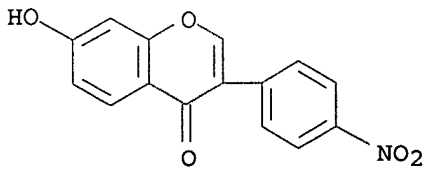
RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



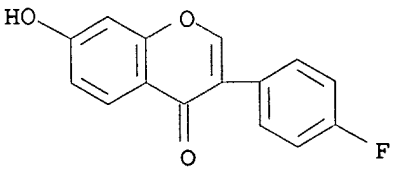
RN 491-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)



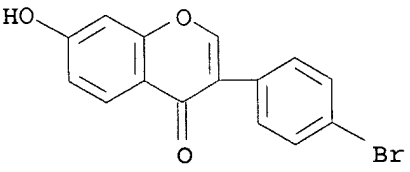
IT 15485-80-0P, 7-Hydroxy-4'-Nitroisoflavone 15584-10-8P
96644-05-2P 449175-73-9P
RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (ALDH-2) and modulating alc.. consumption, dependence and abuse)
RN 15485-80-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-nitrophenyl)- (CA INDEX NAME)



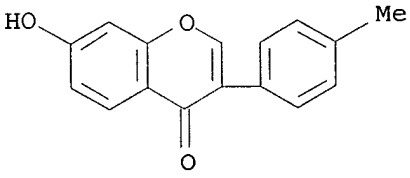
RN 15584-10-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-fluorophenyl)-7-hydroxy- (9CI) (CA INDEX NAME)



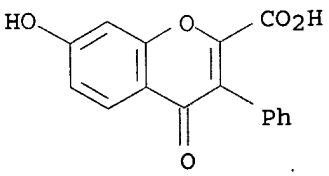
RN 96644-05-2 CAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-bromophenyl)-7-hydroxy- (CA INDEX NAME)



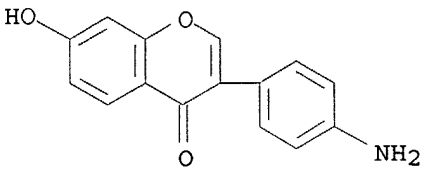
RN 449175-73-9 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-methylphenyl)- (CA INDEX NAME)



IT 39238-04-5P 77316-78-0P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (ALDH-2) and modulating alc. consumption, dependence and abuse)
RN 39238-04-5 CAPLUS
CN 4H-1-Benzopyran-2-carboxylic acid, 7-hydroxy-4-oxo-3-phenyl- (CA INDEX NAME)

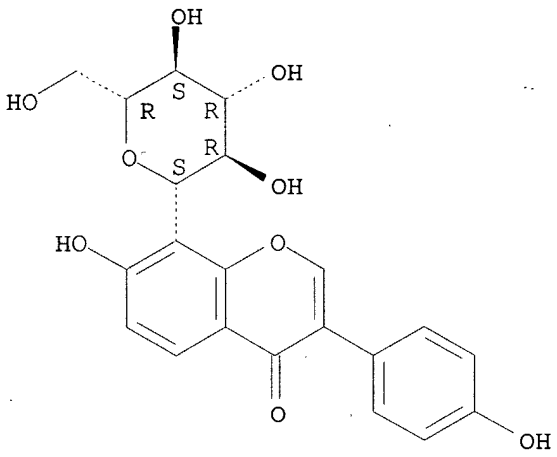


RN 77316-78-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-aminophenyl)-7-hydroxy- (CA INDEX NAME)

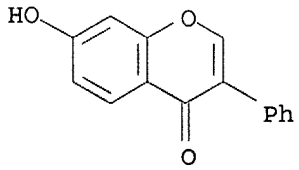


IT 3681-99-0, Puerarin
RL: RCT (Reactant); RACT (Reactant or reagent)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (ALDH-2) and modulating alc. consumption, dependence and abuse)
RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



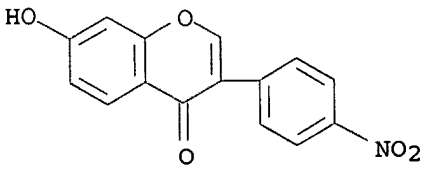
IT 13057-72-2P, 7-Hydroxyisoflavone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (ALDH-2) and modulating alc. consumption, dependence and abuse)
RN 13057-72-2 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-phenyl- (CA INDEX NAME)



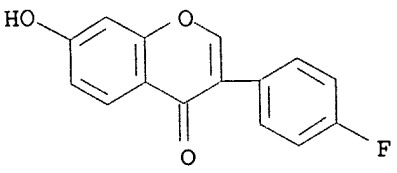
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:645702 CAPLUS
DN 140:138710
TI Synthesis of daidzin analogues as potential agents for alcohol abuse
AU Gao, Guang-Yao; Li, Dian-Jun; Keung, Wing Ming
CS Center for Biochemical and Biophysical Science and Medicine and Department of Psychiatry at Massachusetts Mental Health Center, Harvard Medical School, Boston, MA, 02115, USA
SO Bioorganic & Medicinal Chemistry (2003), 11(18), 4069-4081
CODEN: BMECEP; ISSN: 0968-0896
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 140:138710
AB Daidzin, the active principle of an herbal remedy for ' alc. addiction', has been shown to reduce alc. consumption in all laboratory animals tested to date. Correlation studies using structural analogs of daidzin suggests that it acts by raising the monoamine oxidase (MAO)/mitochondrial aldehyde dehydrogenase (ALDH-2) activity ratio (J. Med. Chemical 2000, 43, 4169). Structure-activity relationship (SAR) studies on the 7-O-substituted analogs of daidzin have revealed structural features important for ALDH-2 and MAO inhibition (J. Med. Chemical 2001, 44, 3320). We here evaluated effects of substitutions at 2, 5, 6, 8, 3' and 4' positions of daidzin on its potencies for ALDH-2 and MAO inhibition. Results show that analogs with 4'-substituents that are small, polar and with hydrogen bonding capacities are most potent ALDH-2 inhibitors, whereas those that are non-polar and with electron withdrawing capacities are potent MAO inhibitors. Analogs with a 5-OH group are less potent ALDH-2 inhibitors but are more potent MAO inhibitors. All the 2-, 6-, 8- and 3'-substituted analogs tested so far do not inhibit ALDH-2 and/or have decreased potencies for MAO inhibition. This, together with the results obtained from previous studies, suggests that a potent antidipsotropic analog would be a 4',7-disubstituted isoflavone. The 4'-substituent should be small, polar, and with hydrogen bonding capacities such as, -OH and -NH2; whereas the 7-substituent should be a straight-chain alkyl with a terminal polar function such as -(CH2)n-OH with $2 \leq n \leq 6$, -(CH2)n-COOH with $5 \leq n \leq 10$, or -(CH2)n-NH2 with $n \geq 4$.
IT 15485-80-0P 15584-10-8P 96644-05-2P
449175-73-9P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(synthesis and structure-activity relationship of daidzin analogs as potential agents for alc. abuse)
RN 15485-80-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-nitrophenyl)- (CA INDEX NAME)



RN 15584-10-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-fluorophenyl)-7-hydroxy- (9CI) (CA INDEX NAME)



RN 96644-05-2 CAPLUS
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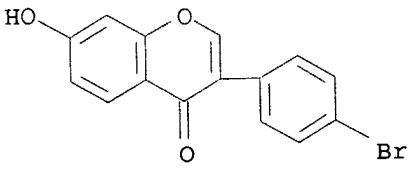
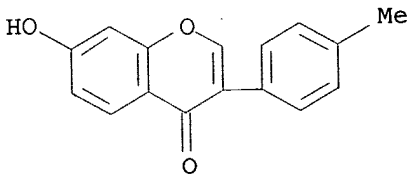
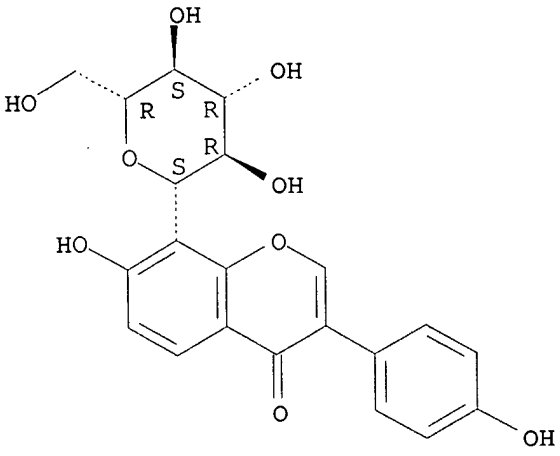


RN 449175-73-9 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-methylphenyl)- (CA INDEX NAME)



IT 3681-99-0, Puerarin 13057-72-2, 7-Hydroxyisoflavone
RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(synthesis and structure-activity relationship of daidzin analogs as potential agents for alc. abuse)
RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



RN 13057-72-2 CAPLUS
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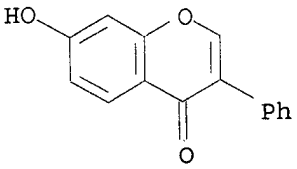
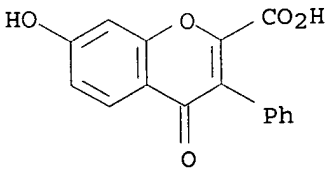
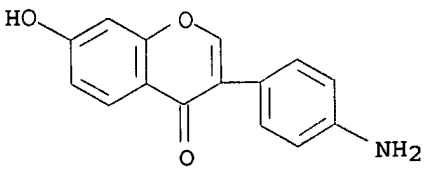


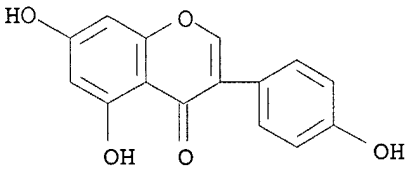
IT 39238-04-5P 77316-78-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and structure-activity relationship of daidzin analogs as potential agents for alc. abuse)
RN 39238-04-5 CAPLUS
CN 4H-1-Benzopyran-2-carboxylic acid, 7-hydroxy-4-oxo-3-phenyl- (CA INDEX NAME)



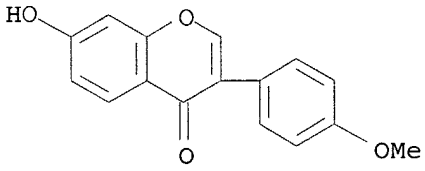
RN 77316-78-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-aminophenyl)-7-hydroxy- (CA INDEX NAME)



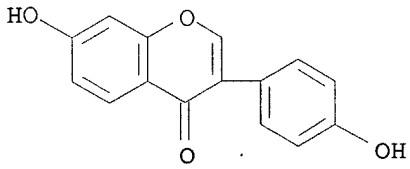
IT 446-72-0 485-72-3 486-66-8 491-80-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(synthesis and structure-activity relationship of daidzin analogs as potential agents for alc. abuse)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



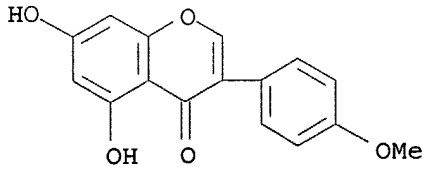
RN 485-72-3 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)



RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



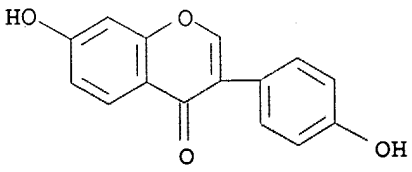
RN 491-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:627700 CAPLUS
DN 135:344295

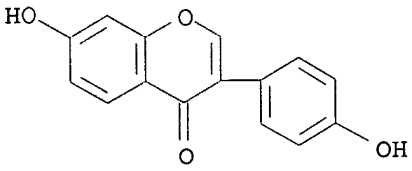
TI Synthesis of Potential Antidipsotropic Isoflavones: Inhibitors of the Mitochondrial Monoamine Oxidase-Aldehyde Dehydrogenase Pathway
AU Gao, Guang-Yao; Li, Dian-Jun; Keung, Wing Ming
CS Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Boston, MA, 02115, USA
SO Journal of Medicinal Chemistry (2001), 44(20), 3320-3328
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 135:344295
AB Recently we have shown that daidzin, the major active principle of an ancient herbal treatment for "alc. addiction", suppresses ethanol intake in alc.-preferring laboratory animals. Further, we have identified the monoamine oxidase (MAO)-aldehyde dehydrogenase (ALDH-2) pathway of the mitochondria as the potential site of action of daidzin. Daidzin analogs that potently inhibit ALDH-2 but have no or little effect on MAO are most antidipsotropic, whereas those that also inhibit MAO exhibit little, if any, antidipsotropic activity. Therefore, in the design and synthesis of more potent antidipsotropic analogs, structural features important for the inhibition of both ALDH-2 and MAO must be taken into consideration. To gain further information on the structure-activity relationships at the inhibitor binding sites of ALDH-2 and MAO, we prepared 44 analogs of daidzin and determined their potencies for ALDH-2 and MAO inhibition. Results indicate that a sufficient set of criteria for a potent antidipsotropic analog is an isoflavone with a free 4'-OH function and a straight-chain alkyl substituent at the 7 position that has a terminal polar function such as -OH, -COOH, or -NH2. The preferable chain lengths for the 7-O-ω-hydroxy, 7-O-ω-carboxy, and 7-O-ω-amino substituents are $2 \leq n \leq 6$, $5 \leq n \leq 10$, and $n \geq 4$, resp. Analogs that meet these criteria have increased potency for ALDH-2 inhibition and/or decreased potency for MAO inhibition and therefore are likely to be potent antidipsotropic agents.
IT 486-66-8, Daidzein
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(synthesis of potential antidipsotropic isoflavones as inhibitors of the mitochondrial monoamine oxidase-aldehyde dehydrogenase pathway)
RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



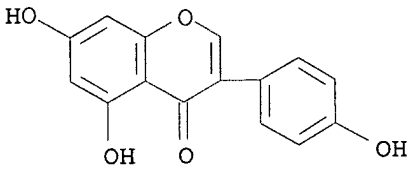
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:703406 CAPLUS
DN 134:13081

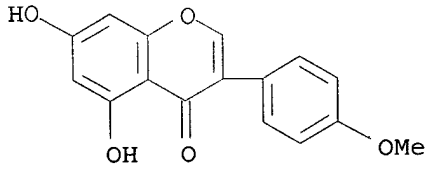
TI The Mitochondrial Monoamine Oxidase-Aldehyde Dehydrogenase Pathway: A Potential Site of Action of Daidzin
AU Rooke, Nadege; Li, Dian-Jun; Li, Junqing; Keung, Wing Ming
CS Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Boston, MA, 02115, USA
SO Journal of Medicinal Chemistry (2000), 43(22), 4169-4179
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
AB Recent studies showed that daidzin suppresses ethanol intake in ethanol-preferring laboratory animals. In vitro, it potently and selectively inhibits the mitochondrial aldehyde dehydrogenase (ALDH-2). Further, it inhibits the conversion of monoamines such as serotonin (5-HT) and dopamine (DA) into their resp. acid metabolites, 5-hydroxyindole-3-acetic acid (5-HIAA) and 3,4-dihydroxyphenylacetic acid (DOPAC) in isolated hamster or rat liver mitochondria. Studies on the suppression of ethanol intake and inhibition of 5-HIAA (or DOPAC) formation by six structural analogs of daidzin suggested a potential link between these two activities. This, together with the finding that daidzin does not affect the rates of mitochondria-catalyzed oxidative deamination of these monoamines, raised the possibility that the ethanol intake-suppressive (antidipsotropic) action of daidzin is not mediated by the monoamines but rather by their reactive biogenic aldehyde intermediates such as 5-hydroxyindole-3-acetaldehyde (5-HIAL) and/or 3,4-dihydroxyphenylacetaldehyde (DOPAL) which accumulate in the presence of daidzin. To further evaluate this possibility, we synthesized more structural analogs of daidzin and tested and compared their antidipsotropic activities in Syrian golden hamsters with their effects on monoamine metabolism in isolated hamster liver mitochondria using 5-HT as the substrate. Effects of daidzin and its structural analogs on the activities of monoamine oxidase (MAO) and ALDH-2, the key enzymes involved in 5-HT metabolism in the mitochondria, were also examined Results from these studies reveal a pos. correlation between the antidipsotropic activities of these analogs and their abilities to increase 5-HIAL accumulation during 5-HT metabolism in isolated hamster liver mitochondria. Daidzin analogs that potently inhibit ALDH-2 but have no or little effect on MAO are most antidipsotropic, whereas those that also potently inhibit MAO exhibit little, if any, antidipsotropic activity. These results, although inconclusive, are consistent with the hypothesis that daidzin may act via the mitochondrial MAO/ALDH pathway and that a biogenic aldehyde such as 5-HIAL may be important in mediating its antidipsotropic action.
IT 486-66-8P, DAidzein
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(mitochondrial MAO-aldehyde dehydrogenase pathway: daidzin derivs. action site)
RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



IT 446-72-0 491-80-5 3681-99-0
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(mitochondrial MAO-aldehyde dehydrogenase pathway: daidzin derivs. action site)
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

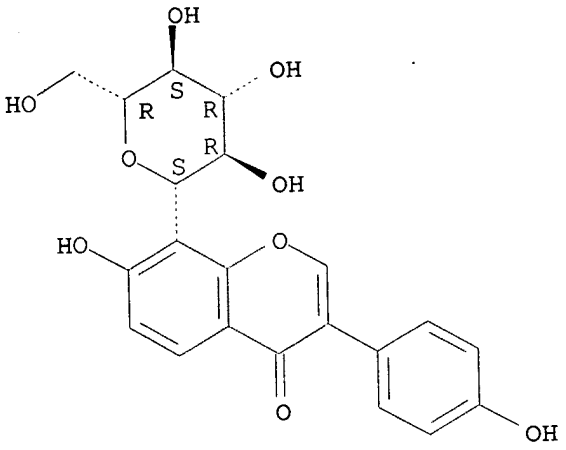


RN 491-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)



RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



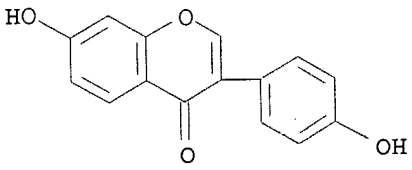
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:173127 CAPLUS
DN 128:291383
TI Daidzin and its antidipsotropic analogs inhibit serotonin and dopamine metabolism in isolated mitochondria
AU Keung, Wing Ming; Vallee, Bert L.
CS Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Boston, MA, 02115, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1998), 95(5), 2198-2203
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB Daidzin, a major active principle of an ancient Chinese herbal treatment (Radix puerariae) for alc. abuse, selectively suppresses ethanol intake in all rodent models tested. It also inhibits mitochondrial aldehyde dehydrogenase (ALDH-2). Studies on ethanol intake suppression and in and ALDH-2 inhibition by structural analogs of daidzin established a link between these two activities and suggested that daidzin may suppress ethanol intake by inhibiting ALDH-2. ALDH -2 is a principal enzyme involved in serotonin (5-HT) and dopamine (DA) metabolism Thus, daidzin may act by inhibiting 5-HT and DA metabolism To evaluate this possibility, we have studied the effect of daidzin and its analogs on 5-HT and DA metabolism in isolated hamster and rat liver mitochondria. Daidzin potently inhibits the formation of 5-hydroxyindole-3-acetic acid (5-HIAA) and 3,4-dihydroxyphenylacetic acid (DOPAC) from their resp. amines in isolated mitochondria. Inhibition is concentration-dependent and is accompanied by a concomitant accumulation of 5-hydroxyindole-3-acetaldehyde and 3,4-dihydroxyphenylacetaldehyde. Daidzin analogs that suppress hamster ethanol intake also inhibit 5-HIAA and DOPAC formation. Comparing their effects on mitochondria-catalyzed 5-HIAA or DOPAC formation and hamster ethanol intake reveals a pos. correlation-the stronger the inhibition on 5-HIAA or DOPAC formation, the greater the ethanol intake suppression. Daidzin and its active analogs, at concns. that significantly inhibit 5-HIAA formation, have little or no effect on mitochondria-catalyzed 5-HT depletion. It appears that the antidipsotropic action of daidzin is not mediated by 5-HT (or DA) but

rather by its reactive intermediates 5-hydroxyindole-3-acetaldehyde and, presumably, 3,4-dihydroxyphenylacetaldehyde as well, which accumulates in the presence of daidzin.

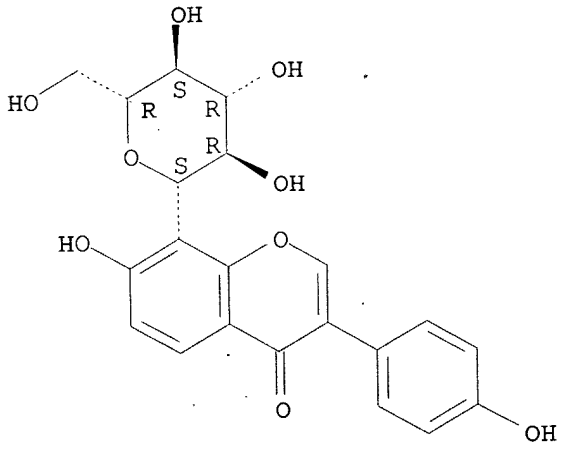
IT 486-66-8, Daidzein 3681-99-0, Puerarin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(daidzin and its antidipsotropic analogs inhibit serotonin and dopamine metabolism in isolated mitochondria)

RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:311251 CAPLUS
DN 126:326770
TI Method for the inhibition of ALDH-I useful in the treatment of alcohol dependence or alcohol abuse
IN Vallee, Bert L.; Keung, Wing-Ming
PA Human Biology, Inc., USA
SO U.S., log36 pp., Cont.-in-part of U.S. 5,204,369.
CODEN: USXXAM
DT Patent
LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5624910	A	19970429	US 1994-170272	19940524
	US 5204369	A	19930420	US 1991-723404	19910701
	WO 9300896	A1	19930121	WO 1992-US5598	19920630
	W: AU, BR, CA, FI, HU, JP, KR, NO, RO, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	US 5886028	A	19990323	US 1997-840360	19970429
	US 6255497	B1	20010703	US 1998-190360	19981112
PRAI	US 1991-723404	A2	19910701		
	WO 1992-US5598	W	19920630		
	US 1994-170272	A1	19940524		
	US 1997-840360	A3	19970429		

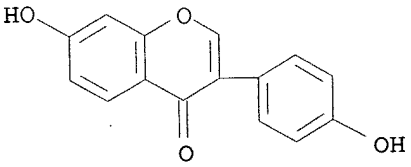
OS MARPAT 126:326770

AB Method for inhibiting aldehyde dehydrogenase activity using daidzin and/or daidzin analog and/or daidzin or daidzin analog in combination with a factor or factors which increase the bioavailability of the daidzin or daidzin analog, as ALDH-I inhibitory compds. or compns. Such inhibitory compds. or compns. are useful as pharmaceutical compns. in methods for the treatment of alc. dependence (i.e., alcoholism) or alc. abuse, for alc. sensitization, for extinguishing an alc.-drinking response, for suppressing an urge for alc., for inducing alc. intolerance, for preventing alcoholism in an individual with or without a susceptibility or predisposition to alcoholism or alc. abuse, and for limiting alc. consumption in an individual whether or not genetically predisposed.

IT 486-66-8, Daidzein
RL: RCT (Reactant); RACT (Reactant or reagent)
(for daidzin analog preparation)

RN 486-66-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



L5 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1997:172678 CAPLUS

DN 126:260370

TI Daidzin inhibits mitochondrial aldehyde dehydrogenase and suppresses ethanol intake of Syrian golden hamsters

AU Keung, Wing Ming; Klyosov, Anatole K.; Vallee, Bert L.

CS Cent. Biochemical Biophysical Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1997), 94(5), 1675-1679
CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

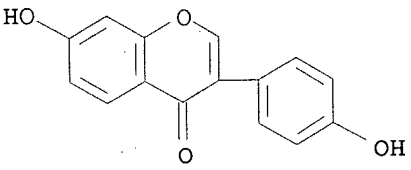
LA English

AB Daidzin is the major active principle in exts. of radix puerariae, a traditional Chinese medication that suppresses the ethanol intake of

Syrian golden hamsters. It is the first isoflavone recognized to have this effect. Daidzin is also a potent and selective inhibitor of human mitochondrial aldehyde dehydrogenase (ALDH-2). To establish a link between these two activities, we have tested a series of synthetic structural analogs of daidzin. The results demonstrate a direct correlation between ALDH-2 inhibition and ethanol intake suppression and raise the possibility that daidzin may, in fact, suppress ethanol intake of golden hamsters by inhibiting ALDH-2. Hamster liver contains not only mitochondrial ALDH-2 but also high concns. of a cytosolic form, ALDH-1, which is a very efficient catalyst of acetaldehyde oxidation Further, the cytosolic isoenzyme is completely resistant to daidzin inhibition. This unusual property of the hamster ALDH-1 isoenzyme accounts for the fact we previously observed that daidzin can suppress ethanol intake of this species without blocking acetaldehyde metabolism Thus, the mechanism by which daidzin suppresses ethanol intake in golden hamsters clearly differs from that proposed for the classic ALDH inhibitor disulfram. We postulate that a physiol. pathway catalyzed by ALDH-2, so far undefined, controls ethanol intake of golden hamsters and mediates the antidipsotropic effect of daidzin.

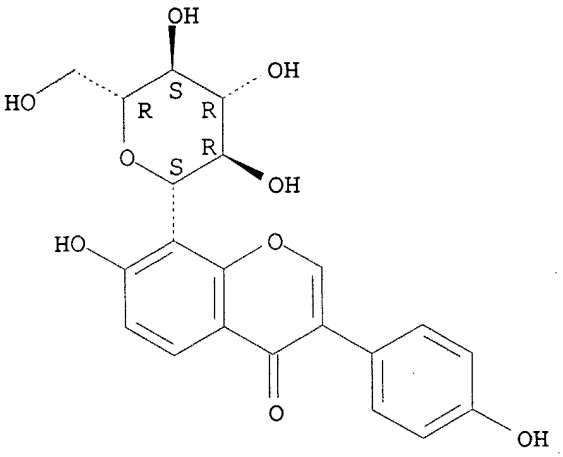
IT 486-66-8, Daidzein 3681-99-0, Puerarin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(daidzin derivs. inhibition of mitochondrial aldehyde dehydrogenase and ethanol intake)

RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1993:185706 CAPLUS
DN 118:185706
TI Method using daidzin or daidzin analog for the inhibition of aldehyde dehydrogenase I (ALDH-I), and use in the treatment of alcohol dependence or alcohol abuse
IN Vallee, Bert L.; Keung, Wing Ming
PA Endowment for Research in Human Biology, Inc., USA
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9300896	A1	19930121	WO 1992-US5598	19920630
	W: AU, BR, CA, FI, HU, JP, KR, NO, RO, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	US 5204369	A	19930420	US 1991-723404	19910701
	AU 9223085	A	19930211	AU 1992-23085	19920630
	EP 592583	A1	19940420	EP 1992-915216	19920630
	EP 592583	B1	20010131		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	AT 198983	T	20010215	AT 1992-915216	19920630
	JP 3170281	B2	20010528	JP 1993-502339	19920630
	CA 2112703	C	20070424	CA 1992-2112703	19920630
	NO 9304911	A	19940228	NO 1993-4911	19931230
	US 5624910	A	19970429	US 1994-170272	19940524
	US 6255497	B1	20010703	US 1998-190360	19981112
PRAI	US 1991-723404	A2	19910701		
	WO 1992-US5598	A	19920630		
	US 1994-170272	A1	19940524		
	US 1997-840360	A3	19970429		

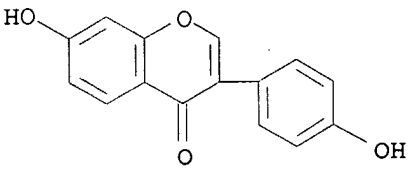
OS MARPAT 118:185706
AB ALDH-I is inhibited by daidzin (I) or an analog thereof, optionally with factor(s) increasing the bioavailability of the I or I analog. Such inhibitory compds. or compns. are useful as pharmaceutical compns in methods for the treatment of alc. dependence (i.e. alcoholism) or alc. abuse, for alc. sensitization, for extinguishing an alc.-drinking response, for suppressing an urge for alc., for inducing alc. intolerance,

for preventing alcoholism in an individual with or without a susceptibility or predisposition to alc. or alc. abuse, and for limiting alc. consumption in an individual, whether or not the individual is genetically predisposed. I was isolated from the crude drug Radix Puerariae (prepared as the dried root of Pueraria lobata). Kinetic consts. for the inhibition by I of ALDH isoenzymes I and II were 40 and 20,000 nM, resp. Preparation and inhibitory activity of ether derivs., e.g. daidzein 7-(ω-carboxydecyl) ether, is also presented. I, at doses of 5, 10, and 30 mg/day suppressed alc. intake by hamsters by 20, 50, and 80%, resp. I in a crude Radix Puerariae methanolic extract was 5-10 times more potent than pure I.

IT 486-66-8D, analogs
RL: BIOL (Biological study)
(aldehyde dehydrogenase I inhibition with, alcoholism treatment in relation to)

RN 486-66-8 CAPLUS

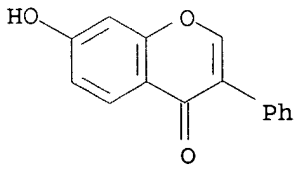
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



IT 13057-72-2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(aldehyde dehydrogenase inhibitory activity of)

RN 13057-72-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-phenyl- (CA INDEX NAME)



L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1993:185661 CAPLUS

DN 118:185661

TI Daidzin: A potent, selective inhibitor of human mitochondrial aldehyde dehydrogenase

AU Keung, Wing Ming; Vallee, Bert L.

CS Cent. Biochem. Biophys. Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1993), 90(4), 1247-51
CODEN: PNASA6; ISSN: 0027-8424

DT Journal

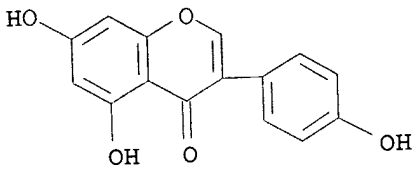
LA English

AB Human mitochondrial aldehyde dehydrogenase (ALDH-I) is potently, reversibly, and selectively inhibited by an isoflavone isolated from Radix

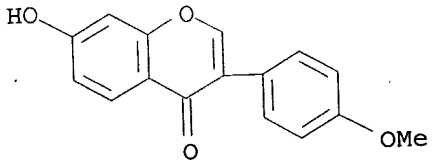
puerariae and identified as daidzin, the 7-glucoside of 4',7-dihydroxyisoflavone. Kinetic anal. with formaldehyde as substrate reveals that daidzin inhibits ALDH-I competitively with respect to formaldehyde with a Ki of 40 nM, and uncompetitively with respect to the coenzyme NAD+. The human cytosolic aldehyde dehydrogenase isoenzyme (ALDH-II) is nearly 3 orders of magnitude less sensitive to daidzin inhibition. Daidzin does not inhibit human class I, II, or III alc. dehydrogenases, nor does it have any significant effect on biol. systems that are known to be affected by other isoflavones. Among more than 40 structurally related compds. surveyed, 12 inhibit ALDH-I, but only prunetin and 5-hydroxydaidzin (genistin) combine high selectivity and potency, although they are 7- to 15-fold less potent than daidzin. Structure-function relationships have established a basis for the design and synthesis of addnl. ALDH inhibitors that could both be yet more potent and specific. Perhaps the ALDH-I inhibitors could be useful in the treatment of alcoholism.

IT 446-72-0, Genistein 485-72-3, Formononetin
486-66-8 491-80-5, Biochanin A 3681-99-0,
Puerarin
RL: BIOL (Biological study)
(aldehyde dehydrogenase of humans-inhibiting activity of, structure in relation to)

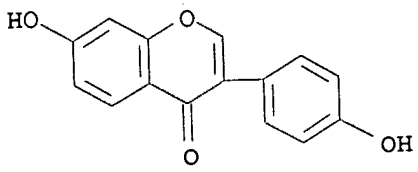
RN 446-72-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



RN 485-72-3 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)

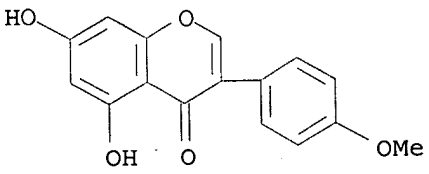


RN 486-66-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)



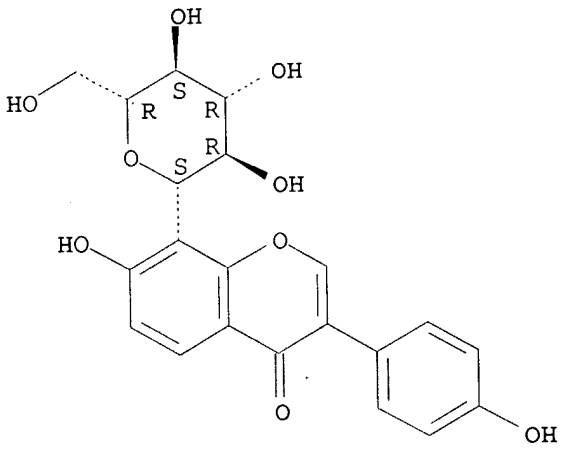
RN 491-80-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-methoxyphenyl)- (CA INDEX NAME)



RN 3681-99-0 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	170.48	342.79
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-22.62	-22.62

FILE 'STNGUIDE' ENTERED AT 10:29:36 ON 16 DEC 2007

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 14, 2007 (20071214/UP).